S. A. ENGINEERING COLLEGE

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

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IoT Based Safety Gadget for Child Monitoring And Notification

ABSTRACT

They can simply leave their children in school or parks and create a Child tracker that helps the parents in continuously monitoring the child's location and geofence around the particular location. By continuously checking the child's location notifications will be generated if the child crosses the geofence. Notifications will be sent according to the child's location to their parents or caretakers. The entire location data will be stored in the database.

Introduction

The internet of things (IoT) refers to the set of devices and systems that stay interconnected with real-world sensors and to the internet. For years' Child safety has been under threat and it is very important to provide a technology-based solution which will help them under panic situations and monitor them using a smart gadget.

RESOURCES

[1] Authors: M Nandini Priyanka, S Murugan, K. N. H. Srinivas,

T. D. S. Sarveswara Rao, E. Kusuma kumara

Title: Smart IoT Device for Child Safety and Tracking.

Published in: 2019 IEEE.

The system is developed using Link-It ONE board programmed in embedded C and interfaced with temperature, heartbeat, touch sensors and also GPS, GSM & digital camera modules. The novelty of the work is that the system automatically alerts the parent/caretaker by sending SMS, when immediate attention is required for the child during an emergency.

Merits: The parameters such as touch, temperature & heartbeat of the child are used for parametric analysis and results are plotted for the same. **Demerits**: To implement the IoT device which ensures the complete solution for child safety problems.

[2] Authors: Akash Moodbidri, Hamid Shahnasser

Title: Child safety wearable device.

Published in: 2017 IEEE.

The purpose of this device is to help the parents to locate their children with ease. At the moment there are many wearables in the market which helps to track the daily activity of children and also helps to find the child using Wi-Fi and Bluetooth services present on the device.

Merits: This wearable over other wearables is that it can be used in any phone and it is not necessary that an expensive smartphone is required and doesn't want to be a very tech savvy individual to operate.

Demerits: As this device's battery gives short life-time.

[3] Authors: Aditi Gupta, Vibhor Harit. Published in: 2016 IEEE.

Title: Child Safety & Tracking Management System by using GPS.

This paper proposed a model for child safety through smart phones that provides the option to track the location of their children as well as in case of emergency children are able to send a quick message and its current location via Short Message services.

Merits: The advantages of smart phones which offer rich features like Google maps, GPS, SMS etc.

Demerits: This system is unable to sense human behavior of children.

[4] Authors: Dheeraj Sunehera, Pottabhatini Laxmi Priya.

Title: Children Location Monitoring on Google Maps Using GPS and GSM.

Published in: 2016 IEEE. This paper provides an Android based solution for the parents to track their children in real time. Different devices are connected with a single device through channels of the internet. The concerned device is connected to the server via the internet. The device can be used by parents to track their children in real time or for women's safety. The proposed solution takes the location services provided by the GSM module. It allows the parents to get their child's current-location via SMS.

Merits: A child tracking system using android terminal and hoc networks.
Demerits: This device cannot be used in rural areas